lants (LA-STIM) in adults with ADHD using Medicaid. **METHODS:** Data were from the IMS Health LRx Database. Patients covered by Medicaid age ≥ 18 years were selected if they initiated treatment with an ADHD medication categorized as ATX, any STIM, or LA-STIM between January 2005 and December 2005. Initiation was defined as first use of a medication preceded by 120 days without a prescription in the same category. Contrasts of most-recent initiations of ATX vs. LA-STIM or ATX vs. LA-STIM, were modeled via stepwise logistic regression. Factors considered were age, gender, prior ADHD medications, initiation type (treatment naïve, switch, add-on, reintroduction), concomitant medications, provider specialty, and line of therapy. **RESULTS:** A total of 8672 patients (58.04% female) most recently initiated treatment with ATX, 27,574 (59.72% female) with STIM, and 15,958 (57.02% female) with LA-STIM. Patients who were more likely to initiate ATX than STIM (lower confidence bound of adjusted odds ratios > 1) were males, naïve to therapy, or had taken different ADHD medications in history prior to the current initiation, had prescriptions from primary care physicians or nurse practitioners, had previous use of ATX, or had concomitant use of antidepressants, antimanics, antipsychotics, anticonvulsants, or sleep aids. Conversely, STIM initiation was more likely for patients switching or being reintroduced to therapy, patients with prior use of stimulant, having concomitant use with anxiolytics, or receiving their prescription from neurologists. The model factors selected for initiation of ATX vs. LA-STIM were consistent with those for the comparison with STIM. **CONCLUSION:** The factors significantly associated with initiation of ATX vs. STIM or LA-STIM suggest that therapy with ATX and STIM are addressing different patient treatment needs. The findings suggest that ATX is preferentially prescribed for patients with psychiatric comorbidities.

MENTAL HEALTH—Methods & Concepts

PMH36

DISEASE PROGRESSION IN ALZHEIMER'S DISEASE PATIENTS TREATED WITH A CHOLINESTERASE INHIBITOR IN CLINICAL PRACTICE

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OBJECTIVES: To model disease progression across multiple domains in Alzheimer's disease (AD) patients treated with a cholinesterase inhibitor in clinical practice. **METHODS:** 435 AD patients starting treatment with donepezil in 11 centers in Sweden were followed up to 3 years. In 6-month intervals data was collected on cognitive function (ADAS-Cog) physical function (IADL and PSMS scales), care setting and resource utilization. Regression modelling was used to identify determinants of disease progression rates and to establish equations predicting progression across multiple domains. A dynamic panel approach was used to model the 6 months change in cognitive function. For physical function a random-effects model was fitted using ADAS-cog and lagged ADAS-cog as explanatory variables. In both models other patient characteristics (e.g. sex, age, disease duration and ApoE-genotype) were included when significant. **RESULTS:** The progression in ADAS-cog was estimated to increase with higher progression in the previous 6 months period, i.e. a one point higher progression in the previous period would translate into 0.4 points higher progression in the present cycle. Also, patients having at least one ApoE ε2 but no ApoE ε4 allele were estimated to have about 2 points higher progression. Both IADL and PSMS scores were estimated to decrease with higher present and lagged ADAS-cog scores (between 0.03 and 0.06 points for each ADAS-cog point) and higher disease duration (0.14 to 0.2 points for each year). Also, male patients were estimated to have 0.46 points lower IADL scores. **CONCLUSION:** The estimated regression functions can be used in a regression model for simulation of long term disease progression. Adding treatment effects and resource utilization linked to disease severity this enables a dynamic framework for economic evaluation of any treatment intervention.

PMH37

TREATMENT PERSISTENCE AND COMPLIANCE WITH GALANTAMINE ER

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OBJECTIVES: Evaluate persistence and compliance patterns with once-daily galantamine ER vs. twice-daily galantamine IR and with galantamine ER vs. twice-daily rivastigmine in an employer-based retiree health benefit claims database. **METHODS:** Data were obtained from a 9 million member health benefit claims database. Patients > 60 years with at least one claim for galantamine ER, IR, or rivastigmine during the period 1/1/05–2/28/06 were eligible, with the first prescription as the index event. Patients had 6 months continuous enrollment pre- and post-index date. Galantamine ER patients were matched up to 1 : 3 to IR and rivastigmine patients based on propensity for galantamine ER therapy. Demographic and clinical characteristics were evaluated pre- and post- propensity matching using descriptive statistics for matched-pairs designs (e.g., t-tests, ÷2 tests). Persistence was evaluated across matched-pair sets by measuring duration of continuous therapy from index date to a gap of more than twice the days supplied for the previous refill. Compliance with each treatment was assessed using medication possession ratio (MPR), calculated as total days supplied divided by total follow-up duration (180 days). Wilcoxon signed rank tests were performed to compare persistence and compliance measures for each matched-pair set. **RESULTS:** The study included 743 galantamine ER versus 1611 IR and 812 galantamine ER versus 1712 rivastigmine users. Demographic characteristics were similar between study groups. Mean age was 78.9 years, 55% were women, and 99% were institutionalized. Mean 6-month follow-up persistency rates were longer for galantamine ER versus IR (136.2 vs 128.7 days; $p = 0.001$) and for galantamine ER vs rivastigmine (135.1 vs 130.1 days; $p = 0.029$). Mean 6-month follow-up MPR was higher for galantamine ER vs IR (0.60 vs 0.55; $p < 0.01$) and trended higher for galantamine ER vs rivastigmine (0.60 vs 0.58; $p = 0.083$). **CONCLUSION:** Our findings suggest once-daily galantamine ER is associated with greater persistence and compliance versus galantamine IR or rivastigmine.

PMH38

ASSESSING PERSISTENCE OF ANTIPSYCHOTICS IN THE TREATMENT OF SCHIZOPHRENIA: USING THE DATA FROM PENNSYLVANIA MEDICAID TO UNDERSTAND THE CHALLENGES

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OBJECTIVES: Among the challenges in assessing persistence with medication time to all-cause discontinuation with pharmacy claims data are the potential variations in persistence definitions and data-cutting criteria. This study compared persistence on